LPDES PERMIT NO. LA0002771, AI No. 67572

LPDES FACT SHEET and RATIONALE
FOR THE DRAFT LOUISIANA POLLUTANT DISCHARGE ELIMINATION SYSTEM (LPDES) PERMIT TO DISCHARGE TO WATERS OF LOUISIANA

I. **Company/Facility Name:** E.I. du Pont de Nemours & Company, Inc.
Burnside Plant
3460 Louisiana Highway 44
Darrow, LA 70725

II. **Issuing Office:** Louisiana Department of Environmental Quality (LDEQ)
Office of Environmental Services
Post Office Box 4313
Baton Rouge, Louisiana 70821-4313

III. **Prepared By:** Paula M. Roberts
Industrial Permits Section
Water Permits Division
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Date Prepared: July 13, 2009

IV. **Permit Action/Status:**

A. Reason For Permit Action:

Proposed reissuance of an expired Louisiana Pollutant Discharge Elimination System (LPDES) permit for a 5-year term following regulations promulgated at LAC 33:IX.2711/40 CFR 122.46.

LAC 33:IX Citations: Unless otherwise stated, citations to LAC 33:IX refer to promulgated regulations listed at Louisiana Administrative Code, Title 33, Part IX.

40 CFR Citations: Unless otherwise stated, citations to 40 CFR refer to promulgated regulations listed at Title 40, Code of Federal Regulations in accordance with the dates specified at LAC 33:IX.2301.F, 4901, and 4903.

B. LPDES permit - NPDES permit effective date: September 1, 2003
NPDES permit expiration date: August 30, 2008
EPA has not retained enforcement authority

C. Application received on February 27, 2008

V. **Facility Information:**

A. Location - 3460 Louisiana Highway 44.Darrow, Ascension Parish

B. Applicant Activity - According to the application, E.I. du Pont de Nemours & Company, Inc., Burnside Plant, is a sulfuric acid plant that manufactures sulfuric acid by burning sulfur in dry air and by regenerating spent alkylation acid and other chemical spent sulfuric acids.

C. Technology Basis - (40 CFR Chapter 1, Subchapter N/Parts 401, 405-415, and 417-471 have been adopted by reference at LAC 33:IX.4903)

Guideline	Reference
Guidelines are reserved for sulfuric acid production	40 CFR 415 Subpart U(reserved)

Other sources of technology based limits:
Current LPDES permit LA0002771, effective date September 1, 2003
LDEQ Stormwater Guidance, letter dated 6/17/87, from J. Dale Givens (LDEQ) to Myron Knudson (EPA Region 6).
Louisiana Water Quality Management Plan for Sanitary Dischargers.
LDEQ Sanitary General Permits
Best Professional Judgement

D. Fee Rate -
1. Fee Rating Facility Type: major
2. Complexity Type: II
3. Wastewater Type: II
4. SIC code: 2819

E. Continuous Facility Effluent Flow (Max 30-Day) - 28.82 MGD (As submitted in the application Form SCC-2 Section II.C average flow).

VI. **Receiving Waters**: Mississippi River (Outfall 001) and the Blind River via the Panama Canal and Bayou Conway (Outfall(s) 004 and 005)

1. TSS (15%), mg/L: 32
2. Average Hardness, mg/L $CaCO_3$: 153.4
3. Critical Flow, cfs: 141,955
4. Mixing Zone Fraction: 0.33
5. Harmonic Mean Flow, cfs: 366,748
6. River Basin: Mississippi River, Segment No. 070301 (Outfall 001) and Lake Pontchartrain, Segment No. 040403 (Outfall(s) 004 and 005)
7. Designated Uses:
   The designated uses for Segment 070301 are primary contact recreation, secondary contact recreation, and fish and wildlife propagation and drinking water supply.

The designated uses for Segment 040403 are primary contact recreation, secondary contact recreation, and fish and wildlife propagation, outstanding natural resources waters.

Blind River is designated as a scenic waterbody.

Information based on the following: LAC 33:IX Chapter 11; Memorandum from Todd Franklin to Paula Roberts dated June 16, 2008. Hardness and 15% TSS data come from monitoring station #319 on the Mississippi River east of Plaquemine, LA at the Plaquemine ferry landing, midstream is listed in Hardness and TSS Data for All LDEQ Ambient Stations for the Period of Record as of March 1998, LeBlanc.

VII. Outfall Information:

Outfall 001

A. Type of wastewater - the continuous discharge of non-contact cooling water from the steam condenser closed system and gas coolers closed system, hydrostatic test water, process area stormwater and the combined discharges from Internal Outfall(s) 101, 201 and 301

B. Location - at the point of discharge located on the western side of the facility prior to commingling with waters of the Mississippi River at Latitude 30° 07' 31", Longitude 90° 54' 44"

C. Treatment - treatment of non-contact cooling water from the steam condenser closed system and gas coolers closed system, hydrostatic test water, process area stormwater wastewaters consists of:
Neutralization

D. Flow - Continuous, (Avg. Flow) 28.66 MGD

E. Receiving waters - Mississippi River

F. Basin and segment - Mississippi River Basin, Segment 070301

Outfall 101

A. Type of wastewater - the intermittent discharge from the wastewater treatment system, including process wastewater, process area washdown and process area stormwater runoff

B. Location - at the point of discharge from the neutralization and settling pond system, prior to commingling with the waters of Outfall 001 at Latitude 30° 7' 31", Longitude 90° 54' 43"

C. Treatment - treatment of process wastewater, process area washdown and process area stormwater runoff:
Neutralization
Sedimentation

D. Flow - Intermittent, (Max 30-Day) 0.14 MGD

E. Receiving waters - Discharge to Outfall 001, thence to Mississippi River

F. Basin and segment - Mississippi River Basin, Segment 070301

Outfall 201

A. Type of wastewater - the continuous discharge of clarifier underflow, boiler feed water softener blowdown/rinse, steam sample cooler condensate and boiler blowdown condensate

B. Location - at the point of discharge from the clarifier underflow, prior to commingling with the waters of Outfall 001 at Latitude 30° 07'32", Longitude 90° 54'41"

C. Treatment - treatment of clarifier underflow, boiler feed water softener blowdown/rinse, steam sample cooler condensate and boiler blowdown condensate consists of:
None

D. Flow - Continuous, (Avg. Flow) 0.01 MGD

E. Receiving waters - Mississippi River

F. Basin and segment - Mississippi River Basin, Segment 070301

Outfall 301

A. Type of wastewater - the continuous discharge of non-contact acid cooler water and cooling water basin overflow

B. Location - at the point of discharge from the cooling water basin prior to commingling with the waters of Outfall 001 at Latitude 30° 07'31", Longitude 90° 54' 44"

C Treatment - treatment of non-contact acid cooler water and cooling water basin underflow consists of:
Sedimentation

D. Flow - Continuous, (Avg. Flow) 18.41 MGD

E. Receiving waters - Mississippi River

F. Basin and segment - Mississippi River Basin, Segment 070301

Outfall 004

A. Type of wastewater - the intermittent discharge of non-process area stormwater from the southern half of the facility, uncontaminated utility wastewaters(non-contact boiler condensate, blowdown from miscellaneous coolers and recover boiler, safety shower/hose station water) hydrostatic test water and discharges from Internal Outfall 104

B. Location - at the point of discharge from plant drainage into the culvert southeast of contractor parking, before entering the sugar cane fields on the eastern portion of the facility at Latitude 30° 07'31", Longitude 90° 54' 24"

C. Treatment - treatment of utility wastewaters consists of:
None

D. Flow - Intermittent, (Avg. Flow) 0.0661 MGD.

E. Receiving waters - a ditch thence into the Panama Canal, thence into Bayou Conway, thence into the Blind River

F. Basin and segment - Lake Pontchartrain Basin, Segment 040403

Outfall 104

A. Type of wastewater - the continuous discharge of treated sanitary wastewater

B. Location - at the point of discharge from the activated sludge package treatment unit prior to commingling with waters of Outfall 004 at Latitude 30° 07' 24", Longitude 90° 54' 41"

C. Treatment - None

D. Flow - Continuous, (Max. 30-day) 0.001 MGD

E. Receiving waters - effluent pipe, thence into Outfall 004, thence into the Panama Canal, thence into Bayou Conway, thence into the Blind River

F. Basin and segment - Lake Pontchartrain Basin, Segment 040403

Outfall 005

A. Type of wastewater - the intermittent discharge of non-process area stormwater runoff from northern half of the facility, washdown water from non-process areas, uncontaminated Mississippi River water and hydrostatic test water

B. Location - at the point of discharge from plant drainage, between the equipment laydown yard and the spill containment pond, before entering the sugar cane fields on the northeastern portion of the facility at Latitude 30° 07' 39", Longitude 90° 54' 31"

C. Treatment - None

D. Flow - Intermittent

E. Receiving waters - effluent pipe, thence into Outfall 004, thence into the Panama Canal, thence into Bayou Conway, thence into the Blind River

F. Basin and segment - Lake Pontchartrain Basin, Segment 040403

VIII. Proposed Permit Limits:

The specific effluent limitations and/or conditions will be found in the draft permit. Development and calculation of permit limits are detailed in the Permit Limit Rationale section below.

Summary of Proposed Changes From the Current LPDES Permit:

A. The previous permit required monitor and report requirements for Total Phosphorus and Total Nitrogen to allow for collection of data in order to make future permitting decisions and to assist in TMDL decisions for subsegment 070301.

The monitoring requirements at Outfall 001 for Total Phosphorus and Total Nitrogen have been removed from this permit due to LDEQ's FINAL 2006 305(b)/303(d) Integrated Report dated February 15, 2008 which list segment 070301 as fully supporting its designated uses.

The LDEQ is aware of the occurrence of a low oxygen hypoxic or "dead zone" in the Gulf of Mexico and its relationship to nutrients and fresh water from the Mississippi River and has developed a criteria development plan for state waters in coordination with EPA to create defensible nutrient criteria based on the best available science. Work on criteria for the Mississippi River is an ongoing effort and will require further scientific investigation because of the complex nature of the large Mississippi River watershed which includes over 30 states and two Canadian Provinces. A reopener clause has been established in the permit in accordance with LAC 33:IX.2903 which allows LDEQ to modify, or alternatively, revoke and reissue the permit to comply with any more stringent nutrient limitations or requirements that are promulgated in the future.

B. The draft permit contains updated Stormwater Pollution Prevention Plan language.

C. The biomonitoring frequency has changed from 1/year to 1/quarter.

D. In Part I, page 6 of 9, the permit limits for pH Excursions listed under the incorrect column. In the draft permit, the limits were moved and listed under the Daily Maximum column.

IX. Permit Limit Rationale:

The following section sets forth the principal facts and the significant factual, legal, methodological, and policy questions considered in preparing the draft permit. Also set forth are any calculations or other explanations of the derivation of specific effluent limitations and conditions, including a citation to the applicable effluent limitation guideline or performance standard provisions as required under LAC 33:IX.2707/40 CFR Part 122.44 and reasons why they are applicable or an explanation of how the alternate effluent limitations were developed.

A. TECHNOLOGY-BASED VERSUS WATER QUALITY STANDARDS-BASED EFFLUENT LIMITATIONS AND CONDITIONS

Following regulations promulgated at LAC 33:IX.2707.L.2.b/40 CFR Part 122.44(l)(2)(ii), the draft permit limits are based on either technology-based effluent limits pursuant to LAC 33:IX.2707.A/40 CFR Part 122.44(a) or on State water quality standards and requirements pursuant to LAC 33:IX.2707.D/40 CFR Part 122.44(d), whichever are more stringent.

B. TECHNOLOGY-BASED EFFLUENT LIMITATIONS AND CONDITIONS

Regulations promulgated at LAC 33:IX.2707.A/40 CFR Part 122.44(a) require technology-based effluent limitations to be placed in LPDES permits based on effluent limitations guidelines where applicable, on BPJ (best professional judgement) in the absence of guidelines, or on a combination of the two. The following is a rationale for types of wastewaters. See outfall information descriptions for associated outfall(s) in Section VII. Regulations also require permits to establish monitoring requirements to yield data representative of the monitored activity [LAC 33:IX.2715/40 CFR 122.48(b)] and to assure compliance with permit limitations [LAC 33:IX.2707.I./40 CFR 122.44(I)].

1. Outfall 001 - the continuous discharge of non-contact cooling water from the steam condenser closed system and gas coolers closed system, hydrostatic test water, process area stormwater and the combined discharges from Internal Outfalls 101, 201 and 301.

Utility wastewaters that include non-contact cooling water from the steam condenser closed system and gas coolers closed system and hydrostatic test waters being discharged to discrete outfalls receive BPJ limitations/monitoring requirements, based on General Permit Number LAG480000 for Light Commercial Facilities.

PARAMETER(S)	MASS, LBS/DAY unless otherwise stated		CONCENTRATION, MG/L unless otherwise stated		MEASUREMENT FREQUENCY
	MONTHLY AVERAGE	DAILY MAXIMUM	MONTHLY AVERAGE	DAILY MAXIMUM	
Flow, MGD	Report	Report	---	---	Continuous
pH Range Excursions No. of Events >60 minutes	---	0	---	---	Continuous
pH Range Excursions Monthly Total Accumulated Time in Minutes	---	446	---	---	Continuous
pH (Standard Units)	---	---	Report 6.0 (Min)(*1)	Report 9.0 (Max)(*1)	Continuous
TSS (*)			---	90	1/event
Oil & Grease	---	---	---	15	1/quarter
Temperature	---	---	Report	Report	Continuous
TOC	---	---	---	50	1/quarter

(*) TSS limit applies only to the hydrostatic test water. The hydrostatic test water shall be sampled and analyzed for this parameter immediately prior to each discharge of hydrostatic test water.

(*1) The permittee shall report on the Discharge Monitoring Reports both the minimum and maximum instantaneous pH values measured.

Site-Specific Consideration(s)

None

E.I. du Pont de Nemours & Company, Inc., Burnside Plant is not subject to Best Practicable Control Technology Currently Available (BPT) and Best Available Technology Economically Achievable (BAT) effluent limitation guidelines because the guidelines under 40 CFR 415 Subpart U are reserved. The permit limitations listed below are being carried forward from the current LPDES permit by BPJ.

2. Internal Outfall 101 - the intermittent discharge from the wastewater treatment facility, including process wastewater, process area washdown and process area stormwater runoff

The proposed permit limitation approach shall be similar to the 9/1/03 permit with the exception of a revised flow from 0.09 to 0.12. These permit limits, formerly established as BPJ, are now BAT for this facility.

PARAMETER(S)	MASS, LBS/DAY unless otherwise stated		CONCENTRATION, MG/L unless otherwise stated		MEASUREMENT FREQUENCY
	MONTHLY AVERAGE	DAILY MAXIMUM	MONTHLY AVERAGE	DAILY MAXIMUM	
Flow, MGD(*1)	Report	Report	---	---	Continuous
TSS(*2)	60	180	---	---	1/week
Total Chromium(*3)	0.4	1.2	0.4	1.2	1/month
Total Copper	0.60	0.82	Report	Report	1/2 months
Total Lead	0.20	0.28	Report	Report	1/2 months
Total Nickel(*3)	0.70	1.50	0.7	1.5	2/week
pH Standard Units	---	---	7.0 (min)	11.5 (max)	1/day

(*1) Flow based on average Outfall 101 flow from Figure 5, Wastewater Flow Balance, in the application dated February 28, 2008.
(*2) The original TSS mass limits utilized in the 10/28/91 permit have been retained.
(*3) Concentration limits are established in the draft permit. Limitation originally established based on DMR data in the NPDES permit effective 9/30/86. The concentration limits established were 0.4 mg/l Monthly Average and 1.2 Daily Maximum for Chromium. Nickel is also limited at levels of 0.7 mg/l Monthly Averge and 1.5 mg/l for Daily Maximum. Chromium shows optimum precipation at pH 8.5-9.5, while Nickel shows optimum precipation at pH 10.5-11.5. By limiting these two metals which have different optimum pH ranges for precipitation, this would insure BAT control of all other metals that fall within these two groups. Please note,pH limitations at Final Outfall 001 are 6.0 - 9.0 standard units.

Using this data, the proposed permit limits are calculated in the following manner:

Flow(MGD) X Conversion X BAT = Limit

Copper = 0.12 X 8.34 X 0.597 = 0.60 lbs/day (Avg.)
0.12 X 8.34 X 0.824 = 0.82 lbs/day (Max)

Lead = 0.12 X 8.34 X 0.199 = 0.20 lbs/day (Avg.)
0.12 X 8.34 X 0.275 = 0.28 lbs/day (Max)

Chromium = 0.12 X 8.34 X 0.4 = 0.40 lbs/day (Avg.)
0.12 X 8.34 X 1.2 = 1.2 lbs/day (Max)

Nickel = 0.12 X 8.34 X 0.70 = 0.70 lbs/day (Avg.)
0.12 X 8.34 X 1.5 = 1.5 lbs/day (Max)

The background for the Effluent Limitations for Outfall 101 from the LPDES permit effective 9/1/03 are as follows:

PARAMETER(S)	MASS, LBS/DAY unless otherwise stated		CONCENTRATION, MG/L unless otherwise stated	
	MONTHLY AVERAGE	DAILY MAXIMUM	MONTHLY AVERAGE	DAILY MAXIMUM
Flow, MGD(*1)	Report	Report	---	---
TSS(*3)	60	180	---	---
Total Chromium(*2)	0.3	0.9	0.4(*4)	1.2(*4)
Total Copper(*5)	0.45	0.62	0.597(*6)	0.824(*6)
Total Lead(*5)	0.15	0.21	0.199(*6)	0.275(*6)
Total Nickel(*2)	0.53	1.13	0.7(*4)	1.5(*4)
pH Standard Units(*2)	---	---	7.0 (min)	11.5 (max)

(*1) Flow used to calculate limits in the LPDES permit, effective 9/1/03 was retained from the NPDES permit, effective 10/28/91. This flow was used in calculating all mass limitations for the metals listed. Actual flow in the application for Outfall 101 for the 8/18/03 LPDES permit was 0.071 MGD.

(*2) Limitation originally established in the NPDES permit effective 9/30/86. Limitation was based on a statistical analysis of DMR data. The concentration limits established were 0.4 mg/l Monthly Average and 1.2 Daily Maximum for chromium. Nickel is also limited at levels of 0.7 mg/l Monthly Averge and 1.5 mg/l for Daily Maximum. Chromium shows optimum precipation at pH 8.5-9.5, while Nickel shows optimum precipation at pH 10.5-11.5. By limiting these two metals which have different optimum pH ranges for precipitation, this would insure BAT control of all other metals that fall within these two groups. Please note, pH limitations at Final Outfall 001 are 6.0 - 9.0 standard units.

(*3) TSS mass values were retained from the 10/28/91 NPDES permit.

(*4) This concentration is established as a limit in the 8/18/03 LPDES permit.

(*5) Mass limitations for these parameters were ordinarily established in the NPDES permit, effective 10/28/91. These limitations were based on the Inorganic Chemical Development Document (ICDD) (EPA 440/1-82/007). The BAT Treatment Limitation data derived from the ICDD are shown in the following table. The Coefficient of Variance (CV) for the daily average was 0.6 and the Cv for the daily maximum was 0.75. Normal distribution statistical methods were used in calculating the effluent levels.

BAT TREATMENT LIMITATIONS

METAL	Treatment Technology *1	LTA ug/l	Daily Avg. 95th Percentile Cv=0.6 ug/l	Daily Max. 99th Percentile Cv=0.75 ug/l
Copper	L/F	300	597	824
Lead	L/FC/F	100	199	275

(*1) L-lime; FC= ferric chloride; and F=filtration

(*6) Concentration placed in table for calculation purposes only. No numeric concentration limit was placed in the 8/18/03 permit. "Report" was the monitoring requirement.

Using this data, the proposed permit limits are calculated in the following manner:

	Flow(MGD) X Conversion X BAT = Limit
Copper =	0.12 X 8.34 X 0.597 = 0.60 lbs/day (Avg.)
	0.12 X 8.34 X 0.824 = 0.82 lbs/day (Max)
Lead =	0.12 X 8.34 X 0.199 = 0.20 lbs/day (Avg.)
	0.12 X 8.34 X 0.275 = 0.28 lbs/day (Max)
Chromium =	0.12 X 8.34 X 0.4 = 0.40 lbs/day (Avg.)
	0.12 X 8.34 X 1.2 = 1.2 lbs/day (Max)
Nickel =	0.12 X 8.34 X 0.70 = 0.70 lbs/day (Avg.)
	0.12 X 8.34 X 1.5 = 1.5 lbs/day (Max)

3. Outfall 201 - the continuous discharge of clarifier underflow, boiler feed water softener, blowdown/rinse, steam sample cooler condensate, and boiler blowdown condensate

Utility wastewaters including clarifier underflow, boiler feed water softener, blowdown/rinse, steam sample cooler condensate and boiler blowdown condensate received proposed limits based upon Best Professional Judgment, the current LPDES permit and permits with similar discharges.

PARAMETER(S)	MASS, LBS/DAY unless otherwise stated		CONCENTRATION, MG/L unless otherwise stated		MEASUREMENT FREQUENCY
	MONTHLY AVERAGE	DAILY MAXIMUM	MONTHLY AVERAGE	DAILY MAXIMUM	
Flow, MGD	Report	Report	---	---	1/month
Clarifying Agents	---	---	---	Inventory Calculation	1/month

4. Outfall 301 - the continuous discharge of non-contact acid cooler water and cooling water basin overflow

Utility wastewaters including non-contact acid cooler water and cooling water basin overflow have received the proposed limits based upon the LAG 480000 General Permit for Light Commercial Facilities effective August 1, 2001 and Best Professional Judgment.

PARAMETER(S)	MASS, LBS/DAY unless otherwise stated		CONCENTRATION, MG/L unless otherwise stated		MEASUREMENT FREQUENCY
	MONTHLY AVERAGE	DAILY MAXIMUM	MONTHLY AVERAGE	DAILY MAXIMUM	
Flow, MGD	Report	Report	---	---	Continuous
pH Range Excursions No. of Events >60 minutes	---	0	---	---	Continuous
pH Range Excursions Monthly Total Accumulated Time in Minutes	---	446	---	---	Continuous
pH (Standard Units)	---	---	Report(*1) (Min)	Report(*1) (Max)	Continuous

(*1) The permittee shall report on the Discharge Monitoring Reports both the minimum and maximum instantaneous pH values measured.

5. Outfall 004 - the intermittent discharge of non-process area stormwater from the southern half of the facility, uncontaminated utility wastewaters(non-contact boiler condensate, blowdown from miscellaneous coolers and recover boiler, safety shower/hose station water), hydrostatic test water and discharge from Internal Outfall 104

Uncontaminated or low potential contaminated stormwater discharged through discrete outfall(s) not associated with process wastewater shall receive the following BPJ limitations in accordance with this Office's guidance on stormwater, letter dated 6/17/87, from J. Dale Givens (LDEQ) to Myron Knudson (EPA Region 6). If a potential exists for a toxic parameter to be discharged through a stormwater, then that toxic parameter shall receive a BPJ limitation based on the OCPSF guidelines (40 CFR 414), Subpart J or a limitation based on empirical data for permitted hazardous landfills in Louisiana.

TSS is a BPJ limitation based upon the previous permit and similar permits discharging hydrostatic test wastewater. This limit is in accordance with the LPDES Hydrostatic Test General Permit, LAG670000, effective February 1, 2008:

PARAMETER(S)	MASS, LBS/DAY unless otherwise stated		CONCENTRATION, MG/L unless otherwise stated		MEASUREMENT FREQUENCY
	MONTHLY AVERAGE	DAILY MAXIMUM	MONTHLY AVERAGE	DAILY MAXIMUM	
Flow, MGD	Report	Report	---	---	1/week
TOC	---	---	---	50	1/week
TSS (*)	---	---	---	90	1/discharge event
Oil & Grease	---	---	---	15	1/week
pH Standard Units	---	---	6.0 (min)	9.0 (max)	1/week

(*) TSS limit applies only to the hydrostatic test water. The hydrostatic test water shall be sampled and analyzed for this parameter immediately prior to each discharge of hydrostatic test water.

6. Outfall 104 - the continuous discharge of sanitary wastewater

Sanitary wastewater (internal or external) are regulated in accordance with LAC 33:IX.711 or 709.B, by BPJ utilizing the sanitary general permits issued by this Office, and the Louisiana Water Quality Management Plan, Areawide Sanitary Effluent Limits Policy and Statewide Sanitary Effluent Limits Policy, as applicable. Concentration limits are used in accordance with LAC 33:IX.2709.F.1.b which states that mass limitations are not necessary when applicable standards and limitations are expressed in other units of measurement. LAC 33:IX.709.B references LAC 33:IX.711 which express BOD_5 and TSS in terms of concentration. Sanitary general permits are issued in classes according to the maximum expected facility flow.

PARAMETER(S)	MASS, LBS/DAY unless otherwise stated		CONCENTRATION, MG/L unless otherwise stated		MEASUREMENT FREQUENCY
	MONTHLY AVERAGE	WEEKLY AVERAGE	MONTHLY AVERAGE	DAILY MAXIMUM	WEEKLY AVERAGE
Flow, MGD	---	Report	---	---	1/6 months
BOD_5	---	---	---	45	1/6 months
TSS	---	---	---	45	1/6 months
Fecal Coliform colonies/100ml	---	---	---	400(*)	1/6 months
pH Standard Units	---	---	6.0 (min)	9.0 (max)	1/6 months

7. Outfall 005 -the intermittent discharge of non-process area stormwater runoff from the northern half of the facility, washdown water from non-process areas, uncontaminated Mississippi River water and hydrostatic test water

Uncontaminated or low potential contaminated stormwater discharged through discrete outfall(s) not associated with process wastewater shall receive the following BPJ limitations in accordance with this Office's guidance on stormwater, letter dated 6/17/87, from J. Dale Givens (LDEQ) to Myron Knudson (EPA Region 6). If a potential exists for a toxic parameter to be discharged through a stormwater, then that toxic parameter shall receive a BPJ limitation based on the OCPSF guidelines (40 CFR 414), Subpart J or a limitation based on empirical data for permitted hazardous landfills in Louisiana.

TSS is a BPJ limitation based upon the previous permit and similar permits discharging hydrostatic test wastewater. This limit is in accordance with the LPDES Hydrostatic Test General Permit, LAG670000, effective February 1, 2008:

PARAMETER(S)	MASS, LBS/DAY unless otherwise stated		CONCENTRATION, MG/L unless otherwise stated		MEASUREMENT FREQUENCY
	MONTHLY AVERAGE	DAILY MAXIMUM	MONTHLY AVERAGE	DAILY MAXIMUM	
Flow, MGD	Report	Report	---	---	1/quarter
TSS (*)	---	---	---	90	1/discharge event*
Oil & Grease	---	---	---	15	1/quarter
TOC	---	---	---	50	1/quarter
pH Standard Units	---	---	6.0 (min)	9.0 (max)	1/quarter

(*) TSS limit applies only to the hydrostatic test water. The hydrostatic test water shall be sampled and analyzed for this parameter immediately prior to each discharge of hydrostatic test water.

In accordance with LAC 33:IX.2707.I.3 and 4 [40 CFR 122.44(I)(3) and (4)], a Part II condition is proposed for applicability to all storm water discharges from the facility, either through permitted outfalls or through outfalls which are not listed in the permit or as sheet flow. **For first time permit issuance**, the Part II condition requires a Storm Water Pollution Prevention Plan (SWP3) within six (6) months of the effective date of the final permit. **For renewal permit issuance**, Part II condition requires a Storm Water Pollution Prevention Plan (SWP3) be reviewed and updated, if necessary, within six (6) months of the effective date of the final permit. If the permittee maintains other plans that contain duplicative information, those plans could

be incorporated by reference to the SWP3. Examples of these type plans include, but are not limited to: Spill Prevention Control and Countermeasures Plan (SPCC), Best Management Plan (BMP), Response Plans, etc. The conditions will be found in the draft permit. Including Best Management Practice (BMP) controls in the form of a SWP3 is consistent with other LPDES and EPA permits regulating similar discharges of stormwater associated with industrial activity, as defined in LAC 33:IX.2522.B.14 [40 CFR 122.26(b)(14)].

C. WATER QUALITY-BASED EFFLUENT LIMITATIONS

Technology-based effluent limitations and/or specific analytical results from the permittee's application were screened against state water quality numerical standard based limits by following guidance procedures established in the Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards, LDEQ, April 16, 2008. Calculations, results, and documentation are given in Appendix A.

In accordance with 40 CFR § 122.44 (d)(1)/LAC 33:IX.2707.D.1, the existing (or potential) discharge (s) was evaluated in accordance with the Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards, LDEQ, April 16, 2008, to determine whether pollutants would be discharged "at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any state water quality standard." Calculations, results, and documentation are given in Appendix A.

The following pollutants received water quality based effluent limits:

POLLUTANT(S)
None

Minimum quantification levels (MQL's) for state water quality numerical standards-based effluent limitations are set at the values listed in the Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards, LDEQ, April 16, 2008. They are also listed in Part II of the permit.

TMDL Waterbodies

Outfall 001

Subsegment 070301 of the Mississippi River Basin is listed on LDEQ's FINAL 2006 305(b)/303(d) Integrated Report dated February 15, 2008 as fully supporting its designated uses. Therefore, there are no impairments of concern and no additional permit limitations included in this permit.

Outfall(s) 004 and 005

Subsegment 040403 of the Lake Pontchartrain Basin is listed on LDEQ's FINAL 2006 305(b)/303(d) Integrated Report dated February 15, 2008 as fully supporting its designated uses of primary contact recreation and secondary contact recreation. Not being supported are the designated uses of fish and wildlife propagation. The 305(b)/303(d) Integrated Report list Mercury, Nitrate/Nitrite, Dissolved Oxygen, Total Phosphorus, Sedimentation/Siltation, and Turbidity as impairments. These parameters are listed as (IRC-Category 5). To date no TMDLs have been developed but TMDLs for this watershed have an expected completion date of March 31, 2011. For the purposes of permit development, these impairments are addressed below.

Mercury
Based on the permit application and effluent analysis submitted for Outfall 004 and Outfall 005, no levels of mercury were reported at a detection level of 0.2 ug/l (i.e. using the most sensitive analysis, the report value of < detection limit or MQL). These two outfalls are intermittent discharges and have no process wastewater discharged from them. The constituents of these two outfalls consist of non-process area stormwater, utility wastewater and hydrostatic test waters. Also, based on the assessment of the effluent discharge, LDEQ believes that there is no potential to discharge Mercury in the receiving water body. Therefore, there will be no additional permit limits imposed in this permit.

Dissolved Oxygen
BOD_5 is used as a method to measure the amount of dissolved oxygen in the waste stream utilized by organisms during the decomposition of organic material over a five day period. Monitoring for BOD_5 allows for the determination of the rate of oxidation in the wastestream. A limit of 45 mg/l BOD_5 is imposed at Outfall 104, based on LDEQ Sanitary General Permit Guidance for Class I internal sanitary outfalls. TOC is a means of measuring organic materials in a discharge and a TOC limit is assigned as a default for all stormwater outfalls as part of the LDEQ Stormwater Guidance. TOC will continue to be used as an estimate of organic materials discharged from outfalls 004 and 005 with a daily maximum limit of 50 mg/l imposed in the permit.

Total Phosphorus
Based on the permit application and effluent analysis submitted for Outfall 004 and Outfall 005, a level of <0.1 mg/l was reported. For an intermittent discharge, LDEQ believes this is not a significant concentration to contribute to this impairment, therefore, there will be no additional permit limits imposed in this permit.

Nitrate/Nitrite
Nitrate/Nitrite is reported as Nitrogen. Based on the permit application and effluent analysis submitted for Outfall 004 and Outfall 005, a level of 0.752 mg/l was reported. For an intermittent discharge, LDEQ believes this is not a significant concentration to contribute to this impairment, therefore, there will be no additional permit limits imposed in this permit.

A reopener clause will be established in the permit to allow for the requirement of more stringent effluent limitations and requirements as imposed by development and completion of future TMDLs.

Sedimentation/Siltation and Turbidity
According to the 305(b)/303(d) Integrated Report, the suspected sources of these impairments are attributed to Site Clearance (Land Development and Redevelopment). Even though no TMDLs have been developed for this watershed, completed and approved TMDLs for other watersheds were consulted. Most mention that point sources are minor contributors and discharge primarily organic TSS, which does not contribute to habitat impairment resulting from sedimentation. These TMDLs address land form contributions of TSS/sediment and do not address the insignificant point source contribution. However, monitoring for TSS measures the amount of suspended solids in a wastestream. Limiting TSS is an effective method of controlling siltation in the receiving waterbody. The TSS limit of 45 mg/l has been retained from the previous permit at Internal Outfall 104.

In addition, there are no construction activities proposed at the site which would have the potential to contribute to these impairments. Also, based on the permit application and effluent analysis submitted for Outfall 004, a concentration limit of 6 mg/l was reported. A concentration value of 12 mg/l was reported for Outfall 005. LDEQ believes there is no potential for this discharge to contribute to these impairments, therefore, no additional permit limits will be imposed in the permit for Outfalls 004 and 005.

D. Biomonitoring Requirements

It has been determined that there may be pollutants present in the effluent which may have the potential to cause toxic conditions in the receiving stream. The State of Louisiana has established a narrative criteria which states, "toxic substances shall not be present in quantities that alone or in combination will be toxic to plant or animal life." The Office of Environmental Services requires the use of the most recent EPA biomonitoring protocols.

Whole effluent biomonitoring is the most direct measure of potential toxicity which incorporates both the effects of synergism of effluent components and receiving stream water quality characteristics. Biomonitoring of the effluent is, therefore, required as a condition of this permit to assess potential toxicity. The biomonitoring procedures stipulated as a condition of this permit for Outfall(s) 001 are as follows:

TOXICITY TESTS	FREQUENCY
Acute static renewal 48-hour definitive toxicity test using Daphnia pulex	1/quarter

Acute static renewal 48-hour definitive toxicity test using fathead minnow (Pimephales promelas)	1/quarter

Toxicity tests shall be performed in accordance with protocols described in the latest revision of the "Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms." The stipulated test species are appropriate to measure the toxicity of the effluent consistent with the requirements of the State water quality standards. The biomonitoring frequency has been established to reflect the likelihood of ambient toxicity and to provide data representative of the toxic potential of the facility's discharge in accordance with regulations promulgated at LAC 33:IX.2715/40 CFR Part 122.48.

Results of all dilutions as well as the associated chemical monitoring of pH, temperature, hardness, dissolved oxygen, conductivity, and alkalinity shall be documented in a full report according to the test method publication mentioned in the previous paragraph. The permittee shall submit a copy of the first full report to the Office of Environmental Compliance. The full report and subsequent reports are to be retained for three (3) years following the provisions of Part III.C.3 of this permit. The permit requires the submission of certain toxicity testing information as an attachment to the Discharge Monitoring Report.

This permit may be reopened to require effluent limits, additional testing, and/or other appropriate actions to address toxicity if biomonitoring data show actual or potential ambient toxicity to be the result of the permittee's discharge to the receiving stream or water body. Modification or revocation of the permit is subject to the provisions of LAC 33:IX.3105/40 CFR 124.5. Accelerated or intensified toxicity testing may be required in accordance with Section 308 of the Clean Water Act.

Dilution Series

The permit requires five (5) dilutions in addition to the control (0% effluent) to be used in the toxicity tests. These additional effluent concentrations shall be 0.45%, 0.60%, 0.80%, 1.1%, and 1.4%. The low-flow effluent concentration (critical dilution) is defined as 1.1% effluent.

X. Compliance History/DMR Review:

A. LDEQ records were reviewed for the period December 2006 through December 2008 and revealed that the facility currently has been issued the following enforcement action(s). The findings are summarized below:

WE-CN-07-150A
Date - February 27, 2008, an Amended Consolidated Compliance Order & Notice of Potential Penalty
Findings:

1. The order included additional permit exceedances reported on the Discharge Monitoring Reports submitted on or about March

18, 2004, March 11, 2003 as well as file reviews conducted by the Department on or about May 3, 2007 and August 8, 2007. Exceedances are related to LWDPS permit WP 1429 and LPDES permit LA0002771.

2. Paragraph IX of the original order was deleted.
3. The remainder of the original Consolidated Compliance Order and Notice of Potential Penalty was incorporated into this Amended Order.

WE-CN-07-150

Date - August 30, 2007, Consolidated Compliance Order & Notice of Potential Penalty

Findings:

1. An inspection conducted on or about April 10, 2002, revealed that the respondent was using expired thermometers to meet requirement of LWDPS permit WP 1429 and LPDES permit LA0002771. The respondents two (2) NIST thermometers had expired but the respondent was still using them.
2. An inspection conducted on or about April 10, 2002, revealed that the respondent was not using adequate quality assurance procedures. Specifically, the inspection revealed that the respondent was not rinsing out/cleaning the compositor collection container between obtaining samples.
3. An inspection conducted on or about April 22, 2002 and subsequent file reviews conducted on or about May 3, 2007 and August 8, 2007, revealed that the respondent failed to sample in accordance with LPDES permit LA0002771 the following:

Monitoring Period	Outfall	Parameter	Frequency
July through September 2006	001Q	Total Nitrogen, Total Phosphorus, TOC, Oil & Grease	Quarterly
October through December 2006	001Q	Total Nitrogen, Total Phosphorus, TOC, Oil & Grease	Quarterly
April through June 2005	001Q	Total Nitrogen, Total Phosphorus, TOC, Oil & Grease	Quarterly
October through December 2005	001Q	Total Nitrogen, Total Phosphorus, TOC, Oil & Grease	Quarterly
April through June 2004	001Q	Total Nitrogen, Total Phosphorus, TOC, Oil & Grease	Quarterly

4. An inspection conducted on or about March 11, 2003 revealed the respondent failed to calibrate its equipment ina timely manner. Specifically, the inspection revealed that the flow meter was calibrated one(1) month past the expiration date of the previous calibration time frame.
5. Inspections conducted on or about March 18, 2004 and March 2003, and subsequent file reviews conducted on or about May 3,

2007 and August 8, 2007 revealed numerous permit exceedances during the monitoring period January 2001 through June 2007 for Outfalls 001, 101, 004 and 104.

6. File reviews conducted on or about May 3, 2007 and August 8, 2007, revealed the respondent failed to submit the Outfall 301 DMR for January 2007 and the Outfall 101B DMR for April 2007.
7. File reviews conducted on or about May 3, 2007 and August 8, 2007, revealed the respondent failed to submit signed and certified Discharge Monitoring Reports Department. Specifically, the respondent failed to sign the DMRs for the monitoring periods of April 1, 2006 through June 30, 2006 for Outfall 005Q.
8. File reviews conducted on or about May 3, 2007 and August 8, 2007, revealed that the respondent reported identical values for Flow and Clarifying Agents/Coagulants for Outfall 201 for all monitoring periods in 2005.

Order:

1. The respondent was ordered to take immediate steps necessary to achieve and maintain compliance with the Water Quality Regulations and the permit limitations and conditions in the LDPES permit LA000277, including, but limited to, properly operating and maintaining the facility, sampling as required, submitting DMRs and submitting signed and certified DMRs, and meeting and maintaining compliance with effluent limitations.
2. To submit properly completed discharge Monitoring Reports (DMRs) for the monitoring period in Paragraphs 6 and 7 above.
3. To submit inventory calculations for the clarifying agents/coagulants that were reported on the DMRs for Outfall 201 during the monitoring periods of 2005.
4. To submit a written report that includes a detailed description of the circumstances surrounding the cited violations and actions taken or to be taken to achieve compliance with the Order Portion of the Compliance Order.

The respondent was made aware of the right to an adjudicatory hearing on a disputed issue of material fact or law arising from the Compliance Order. This right had to be exercised by filing a written request within thirty (30) days after receipt of the Compliance Order.

A request for an adjudicatory hearing was received on March 31, 2008 on behalf of E. I. du Pont by their agents to address the February 27, 2008 Amended Consolidated Compliance Order and Notice of Potential Penalty.

B. A DMR review of the monitoring reports for the period January 2006 through December 2008 revealed the following effluent violations:

DATE	PARAMETER	OUTFALL	REPORTED VALUE		PERMIT LIMITS	
			MONTHLY AVERAGE	DAILY MAXIMUM	MONTHLY AVERAGE	DAILY MAXIMUM
8/06	TSS	101	87.2 lbs/day	128.5 lbs/day	60 lbs/day	180 lbs/day
12/06	Total Chromium	101	0.45 lbs/day	0.45 lbs/day	0.3lbs/day	0.62 lbs/day
6/07	Fecal Coliform	104	N/A	400 col/100ml	N/A	1780 col/100 ml
3/08	Oil & Grease	004	N/A	15 mg/l	N/A	19.6 mg/l

C. A review of the inspection reports for the period December 2006 through December 2008 revealed the following inspections and findings:

Date - November 18, 2007
Findings:

1. DMRs were reviewed since the last CEI inspection. One DMR excursion reported since the last inspection:June 2007, Outfall 104S, Fecal Coliform, the weekly results were 1780 col./100 ml; the permit limits is 400 col./100 ml.
2. Flow meter and pH meters are calibrated monthly. Last calibration date was 11/08/07.
3. The outfalls were visually inspected and they were satisfactory.
4. Records and reports were on site, in order and up to date.
5. All other areas of the inspection appeared satisfactory.

Note: The letter listed after the Outfall number represents the monitoring frequency for the outfall, (i.e. Outfall 104S signifies a semiannual monitoring frequency).

XI. "IT" Questions - Applicant's Responses

The "IT" Questions along with the applicant's responses can be found in the Permit Application dated October 24, 1991. See Appendix B.

This applicant is not required to submit "IT" Questions in accordance with La. R.S. 30:2018(A). This is a renewal application without any substantial modifications.

XII. Endangered Species:

The receiving waterbody, Subsegment 070301 of the Mississippi River Basin, has been identified by the U.S. Fish and Wildlife Service as habitat for the Pallid Sturgeon, which is listed as an endangered species. LDEQ will submit this draft permit to the U.S. Fish and Wildlife Service for review in accordance with a letter dated 11/17/08 from Rieck (FWS)to Nolan (LDEQ). As set forth in the Memorandum of Understanding between the LDEQ and the FWS and based on information provided by the U.S. Fish and Wildlife Service, LDEQ has determined that the issuance of the LPDES permit is not likely to have an adverse effect upon the Pallid Sturgeon. The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat. Therefore, the issuance of the LPDES permit is not likely to have an adverse effect on any endangered or candidate species or the critical habitat.

The receiving waterbody, Subsegment 040403 of the Lake Pontchartrain Basin, has not been identified by the U.S. Fish and Wildlife Service as habitat for any endangered species. This type of discharge is not listed in Section II.2. of the Implementation Strategy as requiring consultation with the U. S. Fish and Wildlife Service. This strategy was submitted with a letter dated 11/17/08 from Rieck (FWS) to Nolan (LDEQ). Therefore, in accordance with the Memorandum of Understanding between the LDEQ and the FWS, no further informal consultation is required. The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat. Therefore, the issuance of the LPDES permit is not likely to have an adverse effect on any endangered or candidate species or the critical habitat.

XIII. Historic Sites:

The discharge is from an existing facility location, which does not include an expansion on undisturbed soils. Therefore, there should be no potential effect to sites or properties on or eligible for listing on the National Register of Historic Places, and in accordance with the "Memorandum of Understanding for the Protection of Historic Properties in Louisiana Regarding LPDES Permits" no consultation with the Louisiana State Historic Preservation Officer is required.

XIV. Tentative Determination:

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to reissue a permit for the discharge described in the application.

XV. Variances:

No requests for variances have been received by this Office.

XVI. Public Notices:

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the fact sheet. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

Public notice published in:

Local newspaper of general circulation

Office of Environmental Services Public Notice Mailing List